

## U.S. DEPARTMENT OF ENERGY TOP CLEAN ENERGY ACCOMPLISHMENTS IN 2023

DOE Concludes 2023 by Celebrating Billions in Historic Clean Energy Investments, Successful Energy Cost Saving Programs, and Workforce Training Initiatives that will Boost our Clean Energy Economy

In 2023, the U.S. Department of Energy (DOE) made monumental strides in advancing the clean energy goals of the Biden-Harris Administration. Through hundreds of funding announcements to make clean energy more accessible in every state, investments in scientific research, historic groundbreakings, and celebratory ribbon cuttings, DOE has been hard at work to combat the climate crisis, lower costs for American families, and pave a path for our clean energy future.

## Here are a few of our top accomplishments of 2023:



## Launching America's First Clean Hydrogen Hubs:

In October, DOE <u>announced \$7 billion in investments</u> to launch seven Regional Clean Hydrogen Hubs (H2Hubs) across the nation and accelerate the commercial-scale deployment of low-cost, clean hydrogen—a valuable energy product that can be produced with zero or near-zero carbon emissions and is crucial to meeting the President's climate and energy security goals. Funded by President Biden's Bipartisan Infrastructure Law, the seven H2Hubs will kickstart a national network of clean hydrogen producers, consumers, and connective infrastructure

while supporting the production, storage, delivery, and end-use of clean hydrogen. This transformative Federal investment will be matched by recipients to leverage a total of nearly \$50 billion to strengthen local economies, create and maintain high-quality jobs—especially those that support worker organizing and collective bargaining—and slash harmful emissions that jeopardize public health and pollute local ecosystems. The states selected are West Virginia, Ohio, Pennsylvania, California, Texas, Minnesota, North Dakota, South Dakota, Delaware, New Jersey, Illinois, Indiana, Michigan, Washington, Oregon, and Montana.



Making Historic Investments in the Grid: This year, DOE made the largest federal investment in the grid in history. Through more than \$8 billion in grid investments including \$3.5 billion to modernize and strengthen the grid through the <u>Grid Resilience Innovation Partnership (GRIP) Program</u>, \$1.3 billion in transmission investments through the <u>Transmission Facilitation Program</u> that aims to add 3.5 GW of additional grid capacity and create more than 13,000 direct and indirect jobs, over \$750M in formula grants to states, tribes, and territories to boost grid resilience, and \$37 million in hydropower incentives. These



investments will help to ensure that the families can keep their lights on during and after extreme weather, wildfire, and natural disasters.

Strengthening Commitment to Puerto Rico: From January through November, Secretary Granholm set out on a Community Engagement Tour, a series of town-hall style events coordinated with Hispanic Federation where residents and community members voiced the unique needs and priorities of their communities. During the Tour, Secretary Granholm visited nearly 20 communities in Puerto Rico, speaking to homeowners and



community leaders about their clean energy needs. In July 2023, DOE <u>announced</u> the first funding opportunity under the <u>Puerto Rico Energy Resilience Fund</u> for \$450 million to support the installation of up to 40,000 residential solar and battery storage systems across Puerto Rico, with a focus on the most vulnerable households and communities.



Building a Convenient and Reliable National EV
Charging Network: In December, Ohio and New York
marked the first states in the nation to open electric vehicle
(EV) charging stations funded through the National Electric
Vehicle Infrastructure (NEVI) Formula Program. These new
charging stations will fill gaps in charging, add capacity, and
boost the reliability of our nation's fast charging network.
Other new charging station launches will follow in 2024, with
stations already under construction in Maine, Pennsylvania,
and Vermont. In May, DOE, through the Joint Office of

Energy and Transportation, launched the <u>National Charging Experience Consortium</u>, a new effort led by DOE's national laboratories works to rapidly develop solutions that



ensure a reliable and frictionless charging experience for all Americans. The development and maintenance of a robust charging network will create jobs and stimulate economic growth in local communities, while public and private investments in EV charging infrastructure will catalyze technological innovation across multiple economic sectors.



Conservation Block Grant Program (EECBG)—designed to assist states, local governments, and Tribes in implementing strategies to reduce energy use, to reduce fossil fuel emissions, and to improve energy efficiency—made substantial progress through EECBG's formula grant program, making \$550 million available to more than 2,700 eligible states, local governments, territories, and Tribes. In addition, the Weatherization Assistance Program (WAP) Retrofit and Readiness team had a busy year

in 2023, reviewing and approving over 160 State Plans and deploying \$3.17B in WAP funding from the Bipartisan Infrastructure Law (BIL). In October 2023, DOE announced the launch of the <u>Affordable Home Energy Shot™</u>, a new initiative focused on the research, development, and demonstration of clean energy solutions to decarbonize and deliver energy and cost savings for affordable homes. The Shot will reduce the cost of energy-efficient retrofits in affordable homes by 50% and decrease residents' energy costs by at least 20% within a decade.

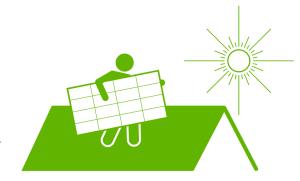
Prioritizing Environmental Justice: In October, DOE reached a significant milestone in its journey toward achieving a just and equitable energy economy—changing the name of the Office of Economic Impact and Diversity to the Office of Energy Justice and Equity to better reflect DOE's commitment to energy justice and tackling the climate crisis through equity-centered solutions. This year, DOE, along with the Department of Treasury and the Internal Revenue Service, launched the <a href="Low-Income Communities">Low-Income Communities</a>
<a href="Bonus Credit Program">Bonus Credit Program</a>, which received more than <a href="46,000 applications">46,000 applications</a> in its first month. This program, supported by the Inflation Reduction Act, addresses the need to expand access to cost-saving clean energy projects in underserved communities through a groundbreaking tax incentive for solar and wind projects across the country. DOE also invested over \$75 million in Tribal communities across the nation, including Tribal Colleges and Universities, American Indian, and Alaska Native communities, to expand their access to clean energy technologies, reduce and stabilize energy costs, and improve Tribal energy sovereignty.

Training the Next Generation of the Clean Energy Workforce: In June, DOE announced a \$13.5 million investment, primarily funded by the Bipartisan Infrastructure Law, in 12 training partnerships to expand the solar energy workforce in underserved



and underrepresented communities, as well as create career pathways with thousands of good-paying jobs. DOE also released \$220 million for grants to support the training of a qualified and diverse clean energy workforce through programs including \$150 million from the <a href="State-Based Home Energy Efficiency Contractor Training formula program">State-Based Home Energy Efficiency Contractor Training formula program</a> prepares local and regional clean energy workforce professionals to decarbonize residential buildings through energy efficiency solutions and \$40 million from the <a href="Energy Auditor Training Program">Energy Energy En

conduct energy audits of commercial and residential buildings to save customers money on their energy bills, and reduce pollution from building energy use. In conjunction with National Apprenticeship week, DOE also announced over \$40 million for Industrial Assessment Centers and Building Training and Assessment Centers to expand training opportunities for in-demand, high-quality jobs while identifying opportunities for organizations to save energy, improve productivity, and reduce waste.



Accelerating Domestic Manufacturing and Boosting Our Supply Chain: As part of President Biden's Investing in America agenda, DOE has been committed to supercharging domestic manufacturing of batteries for electric vehicles (EVs) and the electrical grid and for materials and components currently imported from other countries. This year DOE made countless investments in our domestic supply chain including \$5.5 billion to boost domestic production of advanced batteries, battery materials, and electrified vehicles; over \$13 billion in Advanced Technology Vehicles Manufacturing Loan Program conditional commitments to support the advanced technology vehicles supply chain; \$169 million to accelerate electric heat pump manufacturing at 15 sites across the country; and over \$390 million to expand solar, wind, and vehicle technology domestic manufacturing.



Leading in Scientific Advancements: As the world enters a new era of technology, DOE emerged as a key government player by launching a new departmental element, the Office of Critical and Emerging Technology (CET), to ensure U.S. investments in areas such as artificial intelligence (AI), biotechnology, quantum computing, and semiconductors leverage the Department's wide range of assets and expertise to accelerate progress in these critical sectors. DOE also enabled an AI non-production workspace known as the Discovery Zone.



The Generative AI Discovery Zone is a sandbox environment to provide DOE AI researchers and developers a platform to experiment with Google's Generative AI tools using public data. In November, DOE's <a href="Energy Exascale Earth System Model">Energy Exascale Earth System Model (E3SM)</a>) team, led by researchers and computational scientists across eight DOE national laboratories, broke new barriers with <a href="The Simple Cloud-Resolving E3SM Atmosphere">The Simple Cloud-Resolving E3SM Atmosphere</a> <a href="Model Running">Model Running on the Frontier Exascale System</a> (SCREAM) which performed an <a href="unprecedented global climate model simulation">unprecedented global climate model simulation</a> on the world's first exascale supercomputer, <a href="Frontier">Frontier</a>. This year the National Ignition Facility (NIF) at Lawrence Livermore National Lab not only replicated but exceeded its groundbreaking fusion ignition of December 2022, when it produced more energy from fusion than the laser energy used to drive it.

**Keeping DOE-Owned Lands Clean:** In July, DOE announced the <u>Cleanup to Clean Energy initiative</u>, an innovative effort to repurpose parts of DOE-owned lands—portions of which were previously used in the nation's nuclear weapons program—into the sites of clean-energy generation. Cleanup to Clean Energy will help achieve President Biden's ambitious climate goals and the directive in Executive Order 14057 for agencies to use their properties for the development of new clean electricity generation.

